

Name \_\_\_\_\_ Score \_\_\_\_\_ Period \_\_\_\_\_

BIOLOGY PRACTICE OF GENETIC TERMS

Read carefully and follow all directions.

1. Look at the following genotypes. Determine if they are heterozygous or homozygous

Heterozygous or homozygous

A) AA \_\_\_\_\_

B) Tt \_\_\_\_\_

C) Zz \_\_\_\_\_

D) CC \_\_\_\_\_

E) Dd \_\_\_\_\_

2. In pea plants, round seed shape (R) is dominant over wrinkled seed shape (r) and yellow seed color (Y) is dominant over green seed color (y).

A) Write the genotype of the following:

1. Heterozygous round 1. \_\_\_\_\_

2. Wrinkled 2. \_\_\_\_\_

3. Heterozygous round and heterozygous yellow 3. \_\_\_\_\_

4. Green 4. \_\_\_\_\_

5. Homozygous round and homozygous yellow 5. \_\_\_\_\_

B) Write the phenotype for the following:

1. Rr Yy 1. \_\_\_\_\_

2. yy 2. \_\_\_\_\_

3. rr 3. \_\_\_\_\_

4. rr Yy 4. \_\_\_\_\_

5. Rr yy 5. \_\_\_\_\_

C) Write the genotype for homozygous:

1. Round 1. \_\_\_\_\_

2. Wrinkled 2. \_\_\_\_\_

3. Yellow 3. \_\_\_\_\_

4. Green 4. \_\_\_\_\_

D) Write the genotype for heterozygous:

1. Yellow 1. \_\_\_\_\_

2. Round 2. \_\_\_\_\_

E) Determine if the following are phenotypes or genotypes:

- |             |          |
|-------------|----------|
| 1. Green    | 1. _____ |
| 2. YY       | 2. _____ |
| 3. Wrinkled | 3. _____ |
| 4. Rr       | 4. _____ |

3. Explain the difference between genotype and phenotype.

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4. Explain the difference between homozygous and heterozygous.

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5. Explain why you can not have a heterozygous wrinkled or a heterozygous green pea plant.

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